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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/562,976	12/29/2005	Masaki Murase	283133US6PCT	3533
22850	7590	07/24/2008	EXAMINER	
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			LAM, VINH TANG	
			ART UNIT	PAPER NUMBER
			2629	
			NOTIFICATION DATE	DELIVERY MODE
			07/24/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/562,976	Applicant(s) MURASE ET AL.	
	Examiner VINH T. LAM	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 December 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/29/2005, 01/17/2008 & 04/08/2008</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawing, FIG. **2A**, is objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: **MDK** (should be **MCK**). Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawing, FIG. **4**, is objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "**D1**" has been used to designate both **Prior Art's** Data Signal and **Invention's** Data Signal (i.e. it should be "**D11**"). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if

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only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. Figures **1**, **2**, and **3** should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims **1-2**, and **4** are rejected under 35 U.S.C. 102(b) as being anticipated by **Sakaguchi et al. (US Patent No. 6621478 (already of record))**.

Regarding Claim **1**, **Sakaguchi et al.** teach a flat display apparatus for successively receiving as its input gradation data representing brightness of pixels and for displaying an image based on the gradation data on a predetermined display portion, said flat display apparatus comprising:

a serial-parallel converter for sequentially and cyclically sampling the gradation data to convert the sampled gradation data into gradation data of a plurality of systems (Col. **1**, Ln. **45-49**, FIG. **12**); and

a plurality of horizontal driving circuits provided in correspondence to the gradation data of the systems for setting gradations for pixels of corresponding columns of said display portion in correspondence to the gradation data of the corresponding systems (Col. **1**, Ln. **25-28**, FIG. **12**),

wherein said horizontal driving circuit has a plurality of sampling circuits for successively sampling the gradation data of the corresponding systems to distribute the gradation data of the corresponding systems to the corresponding columns (Col. **1**, Ln. **60-62**, FIG. **12** and Col. **2**, Ln. **53-63**, FIG. **13**), and a digital to analog converter for setting levels of output signals to the columns based on the sampling results from said sampling circuits (Col. **2**, Ln. **39-45**, FIG. **12**),

said serial-parallel converter outputs the gradation data of the plurality of systems to the corresponding horizontal driving circuits, respectively, at timing corresponding to the sequentially cyclic sampling (Col. **2**, Ln. **6-10**, FIG. **12**), and

said horizontal driving circuits of the systems sample the gradation data of the corresponding systems in said plurality of sampling circuits, respectively, at timing

corresponding to sequentially cyclic sampling in said serial-parallel converter (Col. 2, Ln. 53-59, FIG. 13).

Regarding Claim 2, **Sakaguchi et al.** teach the flat display apparatus according to claim 1, wherein said serial-parallel converter, said horizontal driving circuits of the plurality of systems, and a timing generator for outputting timing signals as operational references to said serial-parallel converter and said horizontal driving circuits of the plurality of systems are formed on an insulating substrate of said display portion (Col. 10, Ln. 57-65).

Regarding Claim 4, **Sakaguchi et al.** teach the flat display apparatus according to claim 1, wherein said serial-parallel converter has a data converter for enlarging an amplitude of the gradation data and for sampling sequentially and cyclically the resulting data to convert the resulting data into the data of the plurality of systems, and a level shifting circuit for reducing the amplitudes of the individual data of the plurality of systems obtained by said data converter to output the gradation data of the plurality of systems (Col. 12, Ln. 15-19, FIG. 12).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim **3** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Sakaguchi et al. (US Patent No. 6621478 (already of record))** in view of **Admitted Prior Art**.

Regarding Claim **3**, **Sakaguchi et al.** teach the flat display apparatus according to claim 1.

However, **Sakaguchi et al.** do not explicitly teach the plurality of systems are systems corresponding to odd number columns and even number columns in said display portion, and said horizontal driving circuits of the systems are disposed on upper and lower sides of said display portion, respectively.

In the same field of endeavor, **Admitted Prior Art** teaches the plurality of systems are systems corresponding to odd number columns and even number columns in said display portion, and said horizontal driving circuits of the systems are disposed on upper and lower sides of said display portion, respectively (Col. **1**, [0003] FIG. **1**), for the benefit of having the display serial-parallel converting the gradation data to horizontal driving circuits then digital to analog transforming the gradation data to corresponding odd number columns and even number columns or upper and lower sides of the display sequentially and cyclically.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to unite **Sakaguchi et al.** teaching of the display that serial-parallel converts the gradation data to horizontal driving circuits then digital to analog transforming the gradation data to **Admitted Prior Art** teaching of horizontal driving circuits wherein the plurality of systems corresponding to odd number columns (or

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upper and lower sides of the screen) in order to benefit of the display having serial-parallel converting the gradation data to horizontal driving circuits then digital to analog transforming the gradation data to corresponding odd number columns and even number columns or upper and lower sides of the display sequentially and cyclically.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure is Yoshida (US Patent No. 6670938).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VINH T. LAM whose telephone number is (571)270-3704. The examiner can normally be reached on M-F (7:30-5:00) EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amare Mengistu can be reached on 571 272 1206. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/VTL/

/Amare Mengistu/
Supervisory Patent Examiner, Art Unit 2629